

CLUSTERING REPORT

K-Means Clustering

Number of Clusters: 4

DB Index: 0.9862851051792104

DBSCAN Clustering

Number of Clusters: 4

DB Index: 1.325763488246026

Agglomerative Clustering

Number of Clusters: 4

DB Index: 1.0067180151191164

Conclusion:

- The K-Means clustering algorithm resulted in a Davies-Bouldin Index of 0.9863, indicating a relatively good cluster separation with minimal overlap between clusters.
- DBSCAN yielded a slightly higher DB Index of 1.3258, suggesting a less desirable separation compared to K-Means. The presence of noise points in DBSCAN clustering might be contributing to this result.
- Agglomerative clustering achieved a DB Index of 1.0067, closely resembling K-Means in terms of cluster separation.

Overall:

Based on the Davies-Bouldin Index, K-Means and Agglomerative Clustering appear to be more effective than DBSCAN in this particular dataset. The lower DB Index values for K-Means and Agglomerative clustering indicate better separation between clusters. This information can be further analyzed to determine the most suitable clustering technique for the given dataset.